

Amendments to the Claims:

This listing of claims will replace all prior versions, of claims in the present application:

Listing of Claims:

1-16. (Cancelled)

17. (Previously Presented) A method for monitoring and control of a system comprising the steps of:

receiving in a network processor a plurality of encapsulated statuses in a plurality of packets for a plurality of attributes from a plurality of sensors, the plurality of sensors for monitoring the plurality of attributes of the system, wherein each of the plurality of packets includes an information field, the information field includes a plurality of subfields, wherein the plurality of subfields includes the statuses of the plurality of sensors, wherein an embedded command within each packet indicates the subfield that the network processor is to use in building a key;

determining at least one entry of a plurality of entries in a table to access based upon the plurality of statuses and using the network processor, each of the plurality of entries indicating at least one action to be taken in response to a portion of the plurality of attributes of the system having particular values; and

accessing the at least one entry using the network processor to determine the at least one action.

18. (Original) The method of claim 17 wherein the plurality of entries corresponds to a plurality of values of a key, wherein the step of determining the at least one entry further includes the step of:

determining at least one corresponding value of the key based upon a portion of the plurality of statuses; and

determining at least one match in the plurality of entries for the at least one corresponding value of the key.

19. (Original) The method of claim 18 wherein the at least one corresponding value of the key is based upon the portion of the plurality of statuses from separate sensors of the plurality of sensors.

20. (Original) The method of claim 18 wherein the at least one corresponding value of the key is based upon the portion of the plurality of statuses including more than one status from a single sensor of the plurality of sensors.

21. (Original) The method of claim 17 further comprising the step of:

placing the plurality of statuses in a plurality of packets; and
providing the plurality of packets to the network processor.

22. (Original) The method of claim 21 wherein the placing step further includes the step of:

placing a portion of the statuses from separate sensors of the plurality of sensors into a packet of the plurality of packets.

23. (Original) The method of claim 21 wherein the placing step further includes the step of:
placing more than one status from a single sensor of the plurality of sensors.

24. (Original) The method of claim 22 or 23 wherein the packet has a plurality of status
fields for storing the portion of the plurality of statuses.

25. (Original) The method of claim 24 wherein the plurality of entries corresponds to a
plurality of values of a key;

wherein the corresponding valued of the key determining step further includes the step of
using a portion of the plurality of status fields to determine the status of the key; and

wherein the at least one match determining step further includes the step of determining
the at least one entry by determining at least one match in the plurality of entries for the at least
one corresponding value of the key.

26. (Original) The method of claim 21 wherein the plurality of entries corresponds to a
plurality of values of a key, wherein the at least one corresponding value of the key determining
step further includes the step of determining the at least one corresponding value of the key from
a portion of the plurality of packets; and

wherein the at least one determining step further includes the step of using the network
processor to determine at least one match in the plurality of entries for the at least one
corresponding value of the key.

27. (Original) The method of claim 17 wherein the corresponding action includes issuing an alarm or a warning.

28. (Original) The method of claim 17 wherein the corresponding action includes a dependent condition and wherein the network processor provides information to a system processor for further analysis.

29. (Original) The method of claim 17 wherein the corresponding action includes continuing normal operation.

30. (Original) The method of claim 17 wherein the corresponding action includes using at least one of the plurality of sensors for closely monitoring a portion of the plurality of attributes.

31. (Original) The method of claim 17 wherein the table includes a CAM table.

32. (Original) The method of claim 17 wherein the table includes a decision tree.

33. (Original) The method of claim 17 further comprising the step of:
implementing the at least one action.

34-58. (Cancelled)